

REMARKS

Summary of the Office Action

Claim 1 is objected to because of the following informalities: “the source/drain electrode” in line 27 should be “the source and drain electrodes.” Further, claims 1, 15 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Deane et al., U.S. Patent No. 6,686,229 in view of official notice/admitted prior art, in view of Chae et al., US 2002/0135710, and further in view of Baughman et al., U.S. Patent No. 5,441,593.

Summary of the Response to the Office Action

Claims 1 and 24 have been amended to particularly point out and distinctly claim the subject matter which the Applicants regard as the invention. Further, claims 16, 20 and 23 have been cancelled. Accordingly, claims 1, 15 and 24 are presently pending.

Objection to Claims

In claim 1, the term “the source/drain electrode” in line 27 has been amended to “the source and drain electrodes”. Accordingly, Applicants respectfully request that the objection of claim 1 be withdrawn.

Restriction Requirement

The Office Action states that claims 20, 23 and 24 are drawn to a non-elected invention because claims 20 and 24 were amended to recite limitations related to forming a stepped active photoresist pattern and ashing, and claim 23 depends from claim 20.

Applicants have canceled claims 20 and 23, and amended claim 24 to delete the limitations related to forming a stepped active photoresist pattern and ashing. Therefore, claim 24, as amended, is not drawn to a non-elected invention. Reconsideration and withdrawal of the restriction requirement are respectfully requested.

Rejection under 35 USC § 103(a)

Claims 1, 15 and 16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Deane et al., in view of Chae et al., and further in view of Baughman et al.

Applicants respectfully traverse this rejection as being based on references that neither describe nor suggest the novel combination of features now recited in independent claims 1 and 24, as amended. For example, independent claim 1 now recites, among other features, "forming a gate photoresist pattern on the substrate by a first roller printing process; forming an active photoresist pattern on the high-concentrated N+ layer by a second roller printing process; forming a contact hole photoresist pattern over the passivation layer by a third roller printing process; forming a pixel electrode photoresist pattern over the pixel electrode layer by a fourth roller printing process; and wherein each of the first to fourth roller printing processes comprises, providing a cliché having an intaglio pattern of a groove form; depositing a predetermining amount of photoresist on the cliché; rotating a roller on the cliché to transfer the photoresist contained in the cliché onto a surface the roller; and rotating the roller on the substrate to re-transfer the photoresist contained in the roller onto the substrate thereby forming a photoresist pattern on the substrate." In particular, the claimed invention is featured in that a gate photoresist pattern, an active photoresist pattern, a contact hole photoresist pattern and a pixel electrode photoresist pattern are formed by first to fourth roller printing processes, wherein each of the first to fourth roller printing processes comprises, "providing a cliché having an intaglio pattern of a groove form; depositing a predetermining amount of photoresist on the cliché; rotating a roller on the cliché to transfer the photoresist contained in the cliché onto a surface the roller; and rotating the roller on the substrate to re-transfer the photoresist contained in the roller onto the substrate thereby forming a photoresist pattern on the substrate."

In the contrast to the claimed invention, Deane et al., in view of Chae et al., and further in view of Baughman et al. fail to teach or suggest a gate photoresist pattern, an active photoresist pattern, a contact hole photoresist pattern and a pixel electrode photoresist pattern are formed by first to fourth roller printing processes, as recited in the claimed invention. Further, Deane et al., in view of Chae et al., and further in view of Baughman et al. fail to teach or suggest "each of the first to fourth roller printing processes comprises, providing a cliché having an intaglio pattern of a groove form; depositing a predetermining amount of photoresist on the cliché; rotating a roller on the cliché to transfer the photoresist contained in the cliché onto a surface the roller; and rotating the roller on the substrate to re-transfer the photoresist contained in the roller onto the substrate thereby forming a photoresist pattern on the substrate," as recited in the claimed invention.

Thus, Applicants respectfully assert that Deane et al., in view of Chae et al., and further

in view of Baughman et al do not teach or suggest each and every feature recited in independent claims 1 and 24, as amended. Accordingly, Applicants respectfully request that the 35 U.S.C. § 103(a) rejections of independent claims 1 and 24, as amended, be withdrawn. Further, Applicants respectfully request that the 35 U.S.C. 103(a) rejections of dependent claim 15 be withdrawn at least because of its dependence on independent claim 1, and for additional features that it recites.

CONCLUSION

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action, and as such, the present application is in condition for allowance.

The Examiner is respectfully requested to enter this Amendment After Final, in that it raises no new issues but merely places the claims in a form more clearly patentable over the references of record. In the alternative, the Examiner is respectfully requested to enter this Amendment After Final in that it reduces the issues for appeal.

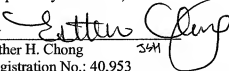
If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone Jun S. Ha, Registration No. 58,508, at (703) 205-8000, in the Washington, D.C. area.

Prompt and favorable consideration of this Amendment is respectfully requested.

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. §§ 1.16 or 1.17; particularly, extension of time fees.

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Respectfully submitted,

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